Eaton Corp plc
Form 10-K
February 27, 2019
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the year ended December 31, 2018
Commission file number 000-54863
EATON CORPORATION plc
(Exact name of registrant as specified in its charter)

Ireland	98-1059235
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification Number)
Eaton House, 30 Pembroke Road, Dublin 4, Ireland	D04 Y0C2
(Address of principal executive offices)	(Zip code)

+353 1637 2900
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Ordinary Shares ($0.01 par value)	The New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes þ No o
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No þ
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer," “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o
Smaller reporting company o	Emerging growth company o	(Do not check if a smaller reporting company)

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange
Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No þ

The aggregate market value of Ordinary Shares held by non-affiliates of the registrant as of June 30, 2018 was $32.4 billion.

As of January 31, 2019, there were 423.6 million Ordinary Shares outstanding.

Table of Contents

Documents Incorporated By Reference

Portions of the Proxy Statement for the 2019 annual shareholders meeting are incorporated by reference into Part III.

Table of Contents

TABLE OF CONTENTS

Table of Contents

Part I

Item 1. Business.
Eaton Corporation plc (Eaton or the Company) is a power management company with 2018 net sales of $21.6 billion. The Company provides energy-efficient solutions that help its customers effectively manage electrical, hydraulic and mechanical power more reliably, safely and sustainably. Eaton has approximately 99,000 employees in 59 countries and sells products to customers in more than 175 countries.
Eaton electronically files or furnishes reports pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (Exchange Act) to the United States Securities and Exchange Commission (SEC), including annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and proxy and information statements, as well as any amendments to those reports. As soon as reasonably practicable, these reports are available free of charge through the Company's website at www.eaton.com. These filings are also accessible on the SEC's website at www.sec.gov.
Business Segment Information
Information by business segment regarding principal products, principal markets, methods of distribution and net sales is presented in Note 16 of the Notes to the Consolidated Financial Statements. Additional information regarding Eaton's segments and business is presented below.
Electrical Products and Electrical Systems and Services
Principal methods of competition in these segments are performance of products and systems, technology, customer service and support, and price. Eaton has a strong competitive position in these segments and, with respect to many products, is considered among the market leaders. In normal economic cycles, sales of these segments are historically lower in the first quarter and higher in the third and fourth quarters of a year. In 2018, 23% of these segments' sales were made to seven large distributors of electrical products and electrical systems and services.
Hydraulics
Principal methods of competition in this segment are product performance, geographic coverage, service, and price. Eaton has a strong competitive position in this segment and, with respect to many products, is considered among the market leaders. Sales of this segment are historically higher in the first and second quarters and lower in the third and fourth quarters of the year. In 2018, 11% of this segment's sales were made to four large original equipment manufacturers or distributors of agricultural, construction, and industrial equipment and parts.
Aerospace
Principal methods of competition in this segment are total cost of ownership, product and system performance, quality, design engineering capabilities, and timely delivery. Eaton has a strong competitive position in this segment and, with respect to many products and platforms, is considered among the market leaders. In 2018, 26% of this segment's sales were made to three large original equipment manufacturers of aircraft.
Vehicle
Principal methods of competition in this segment are product performance, technology, global service, and price. Eaton has a strong competitive position in this segment and, with respect to many products, is considered among the market leaders. In 2018, 61% of this segment's sales were made to nine large original equipment manufacturers of vehicles and related components.
eMobility
Principal methods of competition in this segment are product performance, technology, global service, and price. Eaton has a strong competitive position in this segment. In 2018, 19% of this segment's sales were made to four large original equipment manufacturers of vehicles, construction equipment and related components.
Information Concerning Eaton's Business in General
Raw Materials
Eaton's major requirements for raw materials include iron, steel, copper, nickel, aluminum, brass, tin, silver, lead, titanium, rubber, plastic, electronic components, chemicals and fluids. Materials are purchased in various forms, such as extrusions, castings, powder metal, metal sheets and strips, forging billets, bar stock, and plastic pellets. Raw materials, as well as parts and other components, are purchased from many suppliers. Under normal circumstances,

the Company has no difficulty obtaining its raw materials. In 2018, Eaton maintained appropriate levels of inventory to prevent shortages and did not experience any availability constraints.

Table of Contents

Patents and Trademarks

Eaton considers its intellectual property, including without limitation patents, trade names, domain names, trademarks, confidential information, and trade secrets to be of significant value to its business as a whole. The Company's products are manufactured, marketed and sold under a portfolio of patents, trademarks, licenses, and other forms of intellectual property, some of which expire in the future. Eaton develops and acquires new intellectual property on an ongoing basis and considers all of its intellectual property to be valuable. Based on the broad scope of the Company's product lines, management believes that the loss or expiration of any single intellectual property right would not have a material effect on Eaton's consolidated financial statements or its business segments. The Company's policy is to file applications and obtain patents for the majority of its novel and innovative new products including product modifications and improvements.

Order Backlog

A significant portion of open orders placed with Eaton are by original equipment manufacturers or distributors. These open orders are not considered firm as they have been historically subject to releases by customers. In measuring backlog orders, only the amount of orders to which customers are firmly committed are included. Using this criterion, total backlog at December 31, 2018 and 2017 was approximately $5.3 billion and $4.8 billion, respectively. Backlog should not be relied upon as being indicative of results of operations for future periods.

Environmental Contingencies

Operations of the Company involve the use and disposal of certain substances regulated under environmental protection laws. Eaton continues to modify processes on an ongoing, regular basis in order to reduce the impact on the environment, including the reduction or elimination of certain chemicals used in, and wastes generated from, operations. Compliance with laws that have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, are not expected to have a material adverse effect upon earnings or the competitive position of the Company. Eaton's estimated capital expenditures for environmental control facilities are not expected to be material for 2019 and 2020. Information regarding the Company's liabilities related to environmental matters is presented in Note 9 of the Notes to the Consolidated Financial Statements.

Item 1A. Risk Factors.

Among the risks that could materially adversely affect Eaton's businesses, financial condition or results of operations are the following:

Volatility of end markets that Eaton serves.

Eaton's segment revenues, operating results, and profitability have varied in the past and may vary from quarter to quarter in the future. Profitability can be negatively impacted by volatility in the end markets that Eaton serves. The Company has undertaken measures to reduce the impact of this volatility through diversification of the markets it serves and expansion of the geographic regions in which it operates. Future downturns in any of the markets could adversely affect revenues, operating results, and profitability.

Eaton's operating results depend in part on continued successful research, development, and marketing of new and/or improved products and services, and there can be no assurance that Eaton will continue to successfully introduce new products and services or maintain its present market positions.

The success of new and improved products and services depends on their initial and continued acceptance by Eaton's customers. The Company's businesses are affected, to varying degrees, by technological change and corresponding shifts in customer demand, which could result in unpredictable product transitions or shortened life cycles. Eaton may experience difficulties or delays in the research, development, production, or marketing of new products and services which may prevent Eaton from recouping or realizing a return on the investments required to bring new products and services to market. The Company's market positions may also be impacted by new entrants into Eaton's product or regional markets.

Eaton's ability to attract, develop and retain executives and other qualified employees is crucial to the Company's results of operations and future growth.

Eaton depends on the continued services and performance of key executives, senior management, and skilled personnel, particularly professionals with experience in its industry and business. Eaton cannot be certain that any of these individuals will continue his or her employment with the Company. A lengthy period of time is required to hire and develop replacement personnel when skilled personnel depart. An inability to hire, develop, and retain a sufficient number of qualified employees could materially hinder the business by, for example, delaying Eaton's ability to bring new products to market or impairing the success of the Company's operations.

Table of Contents

Eaton's operations depend on production facilities throughout the world, which subjects them to varying degrees of risk of disrupted production.

Eaton manages businesses with manufacturing facilities worldwide. The Company's manufacturing facilities and operations could be disrupted by a natural disaster, labor strike, war, political unrest, terrorist activity, economic upheaval, or public health concerns. Some of these conditions are more likely in certain geographic regions in which Eaton operates. Any such disruption could cause delays in shipments of products and the loss of sales and customers, and insurance proceeds may not adequately compensate for losses.

If Eaton is unable to protect its information technology infrastructure against service interruptions, data corruption, cyber-based attacks or network security breaches, product or service offerings could be compromised or operations could be disrupted or data confidentiality lost.

Eaton relies on information technology networks and systems, including the Internet, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including procurement, manufacturing, distribution, invoicing and collection. These technology networks and systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components; power outages; hardware failures; or computer viruses. In addition, security breaches could result in unauthorized disclosure of confidential information. If these information technology systems suffer severe damage, disruption, breach, or shutdown, and business continuity plans do not effectively resolve the issues in a timely manner, there could be a negative impact on operating results or the Company may suffer financial or reputational damage.

Further, Cyber-based risks could also include attacks targeting the security, integrity and/or reliability of the hardware, software and information installed, stored or transmitted in our products, including after the purchase of those products and when they are incorporated into third party products, facilities or infrastructure. Such attacks could result in disruptions to third party systems, unauthorized release of confidential or otherwise protected information and corruption of data (our own or that of third parties). Further, to a significant extent, the security of our customers' systems depends on how those systems are protected, configured, updated and monitored, all of which are typically outside our control.

Eaton's global operations subject it to economic risk as Eaton's results of operations may be adversely affected by changes in government legislation, regulations and policies and currency fluctuations.

Operating globally subjects Eaton to changes in government regulations and policies in a large number of jurisdictions around the world, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, data privacy, and exchange controls. Changes in the relative values of currencies occur from time to time and could affect Eaton's operating results. While the Company monitors exchange rate exposures and attempts to reduce these exposures through hedging activities, these risks could adversely affect operating results.

Further, existing free trade laws and regulations provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products could have an impact on our business and financial results.

Eaton may be subject to risks relating to changes in its tax rates or exposure to additional income tax liabilities.

Eaton is subject to income taxes in many jurisdictions around the world. Income tax liabilities are subject to the allocation of income among various tax jurisdictions. The Company's effective tax rate could be affected by changes in the mix among earnings in countries with differing statutory tax rates, changes in the valuation allowance of deferred tax assets, or changes in tax legislation, regulations, and policies. The amount of income taxes paid is subject to ongoing audits by tax authorities in the countries in which Eaton operates. If these audits result in assessments different from amounts reserved, future financial results may include unfavorable adjustments to the Company's tax liabilities.

Eaton uses a variety of raw materials and components in its businesses, and significant shortages, price increases, or supplier insolvencies could increase operating costs and adversely impact the competitive positions of Eaton's products.

Eaton's major requirements for raw materials are described above in Item 1 “Raw Materials”. Significant shortages could affect the prices Eaton's businesses are charged and the competitive position of their products and services, all

of which could adversely affect operating results.
Further, Eaton's suppliers of component parts may increase their prices in response to increases in costs of raw materials that they use to manufacture component parts. The Company may not be able to increase its prices commensurately with its increased costs, adversely affecting operating results.

Table of Contents

Eaton may be unable to adequately protect its intellectual property rights, which could affect the Company's ability to compete.
Protecting Eaton's intellectual property rights is critical to its ability to compete and succeed. The Company owns a large number of patents and patent applications worldwide, as well as trademark and copyright registrations that are necessary, and contribute significantly, to the preservation of Eaton's competitive position in various markets. Although management believes that the loss or expiration of any single intellectual property right would not have a material effect on the results of operations or financial position of Eaton or its business segments, there can be no assurance that any one, or more, of these patents and other intellectual property will not be challenged, invalidated, or circumvented by third parties. Eaton enters into confidentiality and invention assignment agreements with the Company's employees, and into non-disclosure agreements with suppliers and appropriate customers, so as to limit access to and disclosure of proprietary information. These measures may not suffice to deter misappropriation or independent third party development of similar technologies.
Eaton is subject to litigation and environmental regulations that could adversely impact Eaton's businesses.
At any given time, Eaton may be subject to litigation, the disposition of which may have a material adverse effect on the Company's businesses, financial condition or results of operations. Information regarding current legal proceedings is presented in Note 9 and Note 10 of the Notes to the Consolidated Financial Statements.

Item 1B. Unresolved Staff Comments.
None.

Item 2. Properties.
Eaton's principal executive offices are located at Eaton House, 30 Pembroke Road, Dublin 4, Ireland D04 Y0C2. The Company maintains manufacturing facilities at approximately 284 locations in 42 countries. The Company is a lessee under a number of operating leases for certain real properties and equipment, none of which is material to its operations. Management believes that the existing manufacturing facilities are adequate for its operations and that the facilities are maintained in good condition.

Item 3. Legal Proceedings.
Information regarding the Company's current legal proceedings is presented in Note 9 and Note 10 of the Notes to the Consolidated Financial Statements.

Item 4. Mine Safety Disclosures.
Not applicable.

Part II

Item 5. Market for the Registrant's Ordinary Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.
The Company's ordinary shares are listed for trading on the New York Stock Exchange under the symbol ETN. At December 31, 2018, there were 12,846 holders of record of the Company's ordinary shares. Additionally, 18,972 current and former employees were shareholders through participation in the Eaton Savings Plan (ESP), Eaton Personal Investment Plan (EPIP), and the Eaton Puerto Rico Retirement Savings Plan.
Information regarding equity-based compensation plans required by Regulation S-K Item 201(d) is provided in Item 12 of this Form 10-K Report.

Irish Taxes Applicable to Dividends
Irish income tax may arise with respect to dividends paid on Eaton shares. Generally, shareholders who are not tax residents of Ireland and otherwise have no connection with Ireland other than his or her shareholding in Eaton, will not be subject to Irish income tax. However, in certain circumstances, Eaton will be required to deduct Irish dividend withholding tax ("IDWT", currently at the rate of 20%) from dividends paid to its shareholders who are not Irish residents. In the majority of cases though, shareholders resident in the U.S. and certain other countries are exempt from IDWT. To establish exempt status, shareholders who qualify can complete certain Irish dividend withholding tax exemption forms or hold their shares in an account through the Depository Trust Company and have on file with their broker or qualifying agent a valid U.S. address on the record date of the dividend.
Eaton shareholders who receive their dividends subject to Irish dividend withholding tax will generally have no further liability for Irish income tax on the dividends unless they are otherwise subject to Irish income tax.
Issuer's Purchases of Equity Securities
During the fourth quarter of 2018, 9.8 million ordinary shares were repurchased in the open market at a total cost of $700 million. Approximately 5.5 million of these shares were repurchased under the program approved by the Board on February 24, 2016. A summary of the shares repurchased in the fourth quarter of 2018 follows:

Month	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under the plans or programs (in millions)
October	1,455,792	$ 71.11	1,455,792	$ 298
November	3,998,803	$ 73.81	3,998,803	$ 3
December	4,388,605	$ 68.68	46,891	$ —
Total	9,843,200	$ 71.12	5,501,486	

Item 6. Selected Financial Data.
Information regarding selected financial data is presented in the "Five-Year Consolidated Financial Summary" of this Form 10-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.
Information required by this Item is presented in "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K.

Table of Contents

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.
Information regarding market risk is presented in “Market Risk Disclosure” of this Form 10-K.

Item 8. Financial Statements and Supplementary Data.
The reports of the independent registered public accounting firm, consolidated financial statements, and notes to consolidated financial statements are presented in Item 15 of this Form 10-K.
Information regarding selected quarterly financial information for 2018 and 2017 is presented in “Quarterly Data” of this Form 10-K.

Item 9. Change in and Disagreements with Accountants on Accounting and Financial Disclosure.
None.

Item 9A. Controls and Procedures.
Evaluation of Disclosure Controls and Procedures - Pursuant to SEC Rule 13a-15, an evaluation was performed under the supervision and with the participation of Eaton's management, including Craig Arnold - Principal Executive Officer; and Richard H. Fearon - Principal Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on that evaluation, Eaton's management concluded that the Company's disclosure controls and procedures were effective as of December 31, 2018.
Disclosure controls and procedures are designed to ensure that information required to be disclosed in Company reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in Company reports filed under the Exchange Act is accumulated and communicated to management, including the Company's Principal Executive Officer and Principal Financial Officer, to allow timely decisions regarding required disclosure.
Pursuant to Section 404 of the Sarbanes Oxley Act of 2002 and the rules and regulations adopted pursuant thereto, Eaton has included a report of management's assessment of the effectiveness of internal control over financial reporting, which is included in Item 15 of this Form 10-K.
“Report of Independent Registered Public Accounting Firm” relating to internal control over financial reporting as of December 31, 2018 is included in Item 15 of this Form 10-K.
During the fourth quarter of 2018, there was no change in Eaton's internal control over financial reporting that materially affected, or is reasonably likely to materially affect, internal control over financial reporting.

Item 9B. Other Information.
Disclosure Pursuant to Section 13(r) of the Exchange Act
Set forth below is a description of all matters reported by us pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 and Section 13(r) of the Exchange Act. Concurrently with the filing of this Annual Report, we are filing a notice pursuant to Section 13(r) of the Exchange Act that such matters have been disclosed in this Annual Report.
During the fourth quarter 2018, certain of our wholly-owned non-U.S. subsidiaries sold various products to customers in Iran. We received total revenue of approximately 820,559 Euros and realized net profits of approximately 268,547 Euros from the sales (approximately $933,380 and $305,470 in whole U.S. dollars, respectively). Eaton has determined not to take any future orders for sales to Iran.

Table of Contents

Part III

Item 10. Directors, Executive Officers and Corporate Governance.

Information required with respect to the directors of the Company is set forth under the caption "Election of Directors" in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

A listing of executive officers, their ages, positions and offices held over the past five years, as of February 15, 2019, follows:

Name	Age	Position (Date elected to position)
Craig Arnold	58	Chairman of Eaton Corporation plc (June 1, 2016 - present) Chief Executive Officer of Eaton Corporation (June 1, 2016 - present) Director of Eaton Corporation plc (September 1, 2015 - present) President and Chief Operating Officer of Eaton Corporation (September 1, 2015 - May 31, 2016) Vice Chairman and Chief Operating Officer - Industrial Sector of Eaton Corporation (February 1, 2009 - August 31, 2015)
Richard H. Fearon	62	Director of Eaton Corporation plc (September 1, 2015 - present) Vice Chairman and Chief Financial and Planning Officer of Eaton Corporation (April 24, 2002 - present)
Uday Yadav	55	Chief Operating Officer - Industrial Sector of Eaton Corporation (September 1, 2015 - present) President of Aerospace Group of Eaton Corporation (August 1, 2012 - August 31, 2015)
Heath B. Monesmith	48	Executive Vice President and General Counsel of Eaton Corporation (March 1, 2017 - present) Senior Vice President and Deputy General Counsel of Eaton Corporation (May 15, 2015 - March 1, 2017) Vice President and Chief Counsel - Litigation of Eaton Corporation (November 30, 2012 - May 15, 2015)
Thomas E. Moran	54	Senior Vice President and Secretary of Eaton Corporation plc (November 27, 2012 - present)
Ken D. Semelsberger	57	Senior Vice President and Controller of Eaton Corporation (November 1, 2013 - present) Senior Vice President, Finance and Planning - Industrial Sector of Eaton Corporation (February 1, 2009 - October 31, 2013)
Joao V. Faria	54	President - Vehicle Group of Eaton Corporation (May 1, 2017 - present) Vice President and General Manager, Latin America, Electrical Sector and President, Latin America (August 1, 2013 - April 30, 2017)

		President, Americas, Hydraulics Group (July 1, 2010 - July 31, 2013)
Curtis J. Hutchins	53	President - Hydraulics Group of Eaton Corporation (August 1, 2015 - present) President - Asia Pacific Region of Eaton Corporation (September 1, 2009 - July 31, 2015)
Nandakumar Cheruvatath	57	President - Aerospace Group of Eaton Corporation (September 1, 2015 - present) Executive Vice President, Eaton Business System (August 1, 2012 - August 31, 2015)

Table of Contents

Richard M. Eubanks, Jr. (Mark)	46	President - Electrical Products Group of Eaton Corporation (September 1, 2015 - present) President, Eaton Lighting Division (February 1, 2010 - August 31, 2015)
Brian S. Brickhouse	55	President - Electrical Systems and Services Group of Eaton Corporation (July 1, 2018 - present) President, Asia Pacific Region, Electrical (May 15, 2015 - June 30, 2018) President, Power Quality Division, Electrical Sector - Americas (August 15, 2012 - May 14, 2015)

There are no family relationships among the officers listed, and there are no arrangements or understandings pursuant to which any of them were elected as officers. All officers hold office for one year and until their successors are elected and qualified, unless otherwise specified by the Board of Directors; provided, however, that any officer is subject to removal with or without cause, at any time, by a vote of a majority of the Board of Directors.

Information required with respect to compliance with Section 16(a) of the Exchange Act is set forth under the caption “Section 16(a) Beneficial Ownership Reporting Compliance” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

The Company has adopted a Code of Ethics, which applies to the directors, officers and employees worldwide. This document is available on the Company's website at http://www.eaton.com.

There were no changes during the fourth quarter 2018 to the procedures by which security holders may recommend nominees to the Company's Board of Directors.

Information related to the Audit Committee, and members of the Committee who are financial experts, is set forth under the caption “Board Committees - Audit Committee” in the definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Item 11. Executive Compensation.

Information required with respect to executive compensation is set forth under the caption “Compensation Discussion and Analysis” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Information required with respect to securities authorized for issuance under equity-based compensation plans is set forth under the caption “Equity Compensation Plans” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Information required with respect to security ownership of certain beneficial owners, is set forth under the caption “Share Ownership Tables” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Information required with respect to certain relationships and related transactions is set forth under the caption “Review of Related Person Transactions” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Information required with respect to director independence is set forth under the caption “Director Independence” in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Item 14. Principal Accounting Fees and Services.
Information required with respect to principal accountant fees and services is set forth under the caption "Audit Committee Report" in the Company's definitive Proxy Statement to be filed on or about March 15, 2019, and is incorporated by reference.

Part IV

Item 15. Exhibits, Financial Statement Schedules.
(a) (1) The reports of the independent registered public accounting firm, consolidated financial statements and notes to consolidated financial statements are included in Item 8 above:
Reports of Independent Registered Public Accounting Firm
Consolidated Statements of Income - Years ended December 31, 2018, 2017 and 2016
Consolidated Statements of Comprehensive Income - Years ended December 31, 2018, 2017 and 2016
Consolidated Balance Sheets - December 31, 2018 and 2017
Consolidated Statements of Cash Flows - Years ended December 31, 2018, 2017 and 2016
Consolidated Statements of Shareholders' Equity - Years ended December 31, 2018, 2017 and 2016
Notes to Consolidated Financial Statements
(2) All other schedules for which provision is made in Regulation S-X of the SEC are not required under the related instructions or are inapplicable and, therefore, have been omitted.
(3) Exhibits incorporated by reference to or filed in conjunction with this form 10-K are listed below.

3 (i)	Certificate of Incorporation - Incorporated by reference to the Form S-8 filed November 30, 2012
3 (ii)	Amended and restated Memorandum and Articles of Incorporation - Incorporated by reference to the Form 8-K Report filed on May 1, 2017
4.1	Indenture dated as of November 20, 2012, among Turlock Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.1 of Eaton Corporation plc's Form 8-K Current Report filed on November 26, 2012 (Commission File No. 333-182303))
4.2	Supplemental Indenture No. 1, dated as of November 30, 2012, among Eaton Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.2 of the registrant's Form S-4 filed on September 6, 2013)
4.3	Supplemental Indenture No. 2, dated as of January 8, 2013, among Eaton Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.3 of the registrant's Form S-4 filed on September 6, 2013)
4.4	Supplemental Indenture No. 3, dated as of December 20, 2013, among Eaton Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.4 of the registrant's Form 10-K filed on February 28, 2018)
4.5	Supplemental Indenture No. 4, dated as of December 20, 2017 and effective as of January 1, 2018, among Eaton Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.5 of the registrant's Form 10-K filed on February 28, 2018)
4.6	Supplemental Indenture No. 5, dated as of February 16, 2018, among Eaton Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.6 of the registrant's Form 10-K filed on February 28, 2018)
4.7	

Pursuant to Regulation S-K Item 601(b)(4), Eaton agrees to furnish to the SEC, upon request, a copy of the instruments defining the rights of holders of its long-term debt other than those set forth in Exhibits (4.1 - 4.6) hereto

10 Material contracts

(a) Senior Executive Incentive Compensation Plan (effective February 27, 2013) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

10

(b) Deferred Incentive Compensation Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(c) First Amendment to Deferred Incentive Compensation Plan II - Incorporated by reference to the Form S-8 filed November 30, 2012

(d) Excess Benefits Plan II (2008 restatement) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(e) First Amendment to Excess Benefits Plan II (2008 restatement) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(f) Incentive Compensation Deferral Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(g) First Amendment to Incentive Compensation Deferral Plan II - Incorporated by reference to the Form S-8 filed November 30, 2012

(h) Limited Eaton Service Supplemental Retirement Income Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(i) First Amendment to Limited Eaton Service Supplemental Retirement Income Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(j) Supplemental Benefits Plan II (2008 restatement) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(k) First Amendment to Supplemental Benefits Plan II (2008 restatement) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(l) Form of Restricted Share Unit Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(m) Form of Restricted Share Award Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(n) Form of Restricted Share Agreement (Non-Employee Directors) - Incorporated by reference to the Form 8-K Report filed February 1, 2010

(o) Form of Directors' Restricted Share Unit Agreement - Incorporated by reference to the Form 10-K report for the year ended December 31, 2012

(p) Form of Stock Option Agreement for Executives - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(q) Form of Stock Option Agreement for Non-Employee Directors (2008) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2007

(r) Amended and Restated 2002 Stock Plan - Incorporated by reference to the Form S-8 filed November 30, 2012

(s) Amended and Restated 2004 Stock Plan - Incorporated by reference to the Form S-8 filed November 30, 2012

(t) Amended and Restated 2008 Stock Plan - Incorporated by reference to the Form S-8 filed November 30, 2012

(u) Second Amended and Restated 2009 Stock Plan - Incorporated by reference to Form S-8 filed November 30, 2012

(v) Amended and Restated 2012 Stock Plan - Incorporated by reference to the Form S-8 filed November 30, 2012

(w) Amendment to Amended and Restated 2012 Stock Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(x) First Amendment to 2005 Non-Employee Director Fee Deferral Plan - Incorporated by reference to the Form S-8 filed November 30, 2012

(y) 2013 Non-Employee Director Fee Deferral Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

Table of Contents

(z) 2015 Stock Plan - Incorporated by reference to the Form S-8 filed on October 30, 2015

(aa) Form of Change of Control Agreement entered into with officers of Eaton Corporation - Incorporated by reference to the Form 8-K Report filed on December 17, 2015

(bb) Form of Indemnification Agreement entered into with directors - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(cc) Form of Indemnification Agreement II entered into with directors - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(dd) Amended and Restated Executive Strategic Incentive Plan (amended and restated February 27, 2013) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(ee) Executive Strategic Incentive Plan II (effective January 1, 2001) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2002

(ff) Amended and Restated Supplemental Executive Strategic Incentive Plan (amended and restated February 27, 2013) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(gg) Deferred Incentive Compensation Plan (amended and restated effective November 1, 2007) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2009

(hh) Excess Benefits Plan (amended and restated effective January 1, 1989) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2002

(ii) Amendment to Excess Benefits Plan I - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(jj) Supplemental Benefits Plan (amended and restated January 1, 1989) - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2002

(kk) Amendment to Supplemental Benefits Plan I - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2012

(ll) Eaton Corporation Board of Directors Policy on Incentive Compensation, Stock Options and Other Equity Grants upon the Restatement of Financial Results - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(mm) Amended and Restated Grantor Trust Agreement for Non-Employee Directors’ Deferred Fees Plans - effective January 1, 2010 - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2010

(nn) Amended and Restated Grantor Trust Agreement for Employees’ Deferred Compensation Plans - effective January 1, 2010 - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2010

(oo) Eaton Savings Plan 2016 Restatement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(pp)

Eaton Personal Investment Plan 2015 Restatement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(qq) Performance Share Award Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(rr) Form of Indemnification Agreement entered into with officers of Eaton Corporation - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(ss) Amendment to Limited Eaton Service Supplemental Retirement Income Plan I- Incorporated by reference to the Form 10-K Report for the year ended December 31, 2015

(tt) First Amendment to Eaton Savings Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016

(uu) Second Amendment to Eaton Savings Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016

(vv) First Amendment to Eaton Personal Investment Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016

Table of Contents

	(ww)	Second Amendment to Eaton Personal Investment Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(xx)	Amendment to Eaton Corporation Excess Benefits Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(yy)	Amendment to Eaton Corporation Supplemental Benefits Plan - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(zz)	Second Amendment to Eaton Corporation Excess Benefits Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(aaa)	Second Amendment to Limited Eaton Service Supplemental Retirement Income Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(bbb)	Second Amendment to Eaton Corporation Supplemental Benefits Plan II - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(ccc)	2016 RSU Grant Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(ddd)	2016 Performance Share Grant Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
	(eee)	Special 2016 Performance Share Grant Agreement - Incorporated by reference to the Form 10-K Report for the year ended December 31, 2016
14		Code of Ethics - Incorporated by reference to the definitive Proxy Statement filed on March 14, 2008
21		Subsidiaries of Eaton Corporation plc - Filed in conjunction with this Form 10-K Report *
23		Consent of Independent Registered Public Accounting Firm - Filed in conjunction with this Form 10-K Report *
24		Power of Attorney - Filed in conjunction with this Form 10-K Report *
31.1		Certification of Principal Executive Officer (Pursuant to the Sarbanes-Oxley Act of 2002, Section 302) - Filed in conjunction with this Form 10-K Report *
31.2		Certification of Principal Financial Officer (Pursuant to the Sarbanes-Oxley Act of 2002, Section 302) - Filed in conjunction with this Form 10-K Report *
32.1		Certification of Principal Executive Officer (Pursuant to the Sarbanes-Oxley Act of 2002, Section 906) - Filed in conjunction with this Form 10-K Report *
32.2		Certification of Principal Financial Officer (Pursuant to the Sarbanes-Oxley Act of 2002, Section 906) - Filed in conjunction with this Form 10-K Report *
101.INS		XBRL Instance Document *

101.SCH	XBRL Taxonomy Extension Schema Document *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document *
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document *
101.LAB	XBRL Taxonomy Extension Label Linkbase Document *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document *

* Submitted electronically herewith.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Statements of Income for the years ended December 31, 2018, 2017 and 2016, (ii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, 2017 and 2016 (iii) Consolidated Balance Sheets at December 31, 2018 and 2017, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016, (v) Consolidated Statements of Shareholders' Equity for the years ended December 31, 2018, 2017 and 2016 and (vi) Notes to Consolidated Financial Statements for the year ended December 31, 2018.

Item 16. Form 10-K Summary.
Not applicable.

Table of Contents

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

EATON CORPORATION plc
Registrant

Date: February 27, 2019 By: /s/ Richard H. Fearon
Richard H. Fearon
(On behalf of the registrant and as Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Date: February 27, 2019

Signature	Title		
* Craig Arnold	Chairman, Principal Executive Officer; Director	/s/ Richard H. Fearon Richard H. Fearon	Principal Financial Officer, Director
/s/ Ken D. Semelsberger Ken D. Semelsberger	Principal Accounting Officer	* Todd M. Bluedorn	Director
* Christopher M. Connor	Director	* Michael J. Critelli	Director
* Charles E. Golden	Director	* Arthur E. Johnson	Director
* Deborah L. McCoy	Director	/s/ Gregory R. Page Gregory R. Page	Director
* Sandra Pianalto	Director	* Gerald B. Smith	Director
* Dorothy C. Thompson	Director		

*By /s/ Richard H. Fearon
Richard H. Fearon, Attorney-in-Fact for the officers and directors signing in the capacities indicated

15

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Eaton Corporation plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Eaton Corporation plc (“the Company”) as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 27, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company’s auditor since 1923.

Cleveland, Ohio
February 27, 2019

Table of Contents

MANAGEMENT'S REPORT ON FINANCIAL STATEMENTS

We have prepared the accompanying consolidated financial statements and related information of Eaton Corporation plc ("Eaton") included herein for the three years ended December 31, 2018. The primary responsibility for the integrity of the financial information included in this annual report rests with management. The financial information included in this annual report has been prepared in accordance with accounting principles generally accepted in the United States based on our best estimates and judgments and giving due consideration to materiality. The opinion of Ernst & Young LLP, Eaton's independent registered public accounting firm, on those consolidated financial statements is included herein.

Eaton has high standards of ethical business practices supported by the Eaton Code of Ethics and corporate policies. Careful attention is given to selecting, training and developing personnel, to ensure that management's objectives of establishing and maintaining adequate internal controls and unbiased, uniform reporting standards are attained. Our policies and procedures provide reasonable assurance that operations are conducted in conformity with applicable laws and with the Company's commitment to a high standard of business conduct.

The Board of Directors pursues its responsibility for the quality of Eaton's financial reporting primarily through its Audit Committee, which is composed of five independent directors. The Audit Committee meets regularly with management, the internal auditors and the independent registered public accounting firm to ensure that they are meeting their responsibilities and to discuss matters concerning accounting, internal control, audits and financial reporting. The internal auditors and independent registered public accounting firm have full and free access to senior management and the Audit Committee.

/s/ Craig Arnold	/s/ Richard H. Fearon	/s/ Ken D. Semelsberger
Principal Executive Officer	Principal Financial Officer	Principal Accounting Officer

February 27, 2019

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Eaton Corporation plc

Opinion on Internal Control over Financial Reporting

We have audited Eaton Corporation plc's ("the Company") internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018 and the related notes and our report dated February 27, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Cleveland, Ohio
February 27, 2019

Table of Contents

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Eaton Corporation plc ("Eaton") is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act rules 13a-15(f)).

Under the supervision and with the participation of Eaton's management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In conducting this evaluation, we used the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control - Integrated Framework (2013 Framework). Based on this evaluation under the framework referred to above, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2018.

The independent registered public accounting firm Ernst & Young LLP has issued an audit report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. This report is included herein.

/s/ Craig Arnold	/s/ Richard H. Fearon	/s/ Ken D. Semelsberger
Principal Executive Officer	Principal Financial Officer	Principal Accounting Officer

February 27, 2019

Table of Contents

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF INCOME

	Year ended December 31		
(In millions except for per share data)	2018	2017	2016
Net sales	$21,609	$20,404	$19,747
Cost of products sold	14,511	13,756	13,396
Selling and administrative expense	3,548	3,526	3,464
Research and development expense	584	584	587
Interest expense - net	271	246	233
Gain on sale of business	—	1,077	—
Arbitration decision expense	275	—	—
Other (income) expense - net	(4)	1	(51)
Income before income taxes	2,424	3,368	2,118
Income tax expense	278	382	199
Net income	2,146	2,986	1,919
Less net income for noncontrolling interests	(1)	(1)	(3)
Net income attributable to Eaton ordinary shareholders	$2,145	$2,985	$1,916
Net income per share attributable to Eaton ordinary shareholders			
Diluted	$4.91	$6.68	$4.20
Basic	4.93	6.71	4.21
Weighted-average number of ordinary shares outstanding			
Diluted	436.9	447.0	456.5
Basic	434.3	444.5	455.0
Cash dividends declared per ordinary share	$2.64	$2.40	$2.28

The accompanying notes are an integral part of the consolidated financial statements.

Table of Contents

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year ended December 31		
(In millions)	2018	2017	2016
Net income	$ 2,146	$ 2,986	$ 1,919
Less net income for noncontrolling interests	(1)	(1)	(3)
Net income attributable to Eaton ordinary shareholders	2,145	2,985	1,916
Other comprehensive income (loss), net of tax			
Currency translation and related hedging instruments	(609)	807	(570)
Pensions and other postretirement benefits	(139)	241	(6)
Cash flow hedges	7	(4)	(9)
Other comprehensive income (loss) attributable to Eaton ordinary shareholders	(741)	1,044	(585)
Total comprehensive income attributable to Eaton ordinary shareholders	$ 1,404	$ 4,029	$ 1,331

The accompanying notes are an integral part of the consolidated financial statements.

Table of Contents

EATON CORPORATION plc
CONSOLIDATED BALANCE SHEETS

	December 31	
(In millions)	2018	2017
Assets		
Current assets		
Cash	$283	$561
Short-term investments	157	534
Accounts receivable - net	3,858	3,943
Inventory	2,785	2,620
Prepaid expenses and other current assets	507	679
Total current assets	7,590	8,337
Property, plant and equipment		
Land and buildings	2,466	2,491
Machinery and equipment	6,106	6,014
Gross property, plant and equipment	8,572	8,505
Accumulated depreciation	(5,105)	(5,003)
Net property, plant and equipment	3,467	3,502
Other noncurrent assets		
Goodwill	13,328	13,568
Other intangible assets	4,846	5,265
Deferred income taxes	293	253
Other assets	1,568	1,698
Total assets	$31,092	$32,623
Liabilities and shareholders’ equity		
Current liabilities		
Short-term debt	$414	$6
Current portion of long-term debt	339	578
Accounts payable	2,130	2,166
Accrued compensation	457	453
Other current liabilities	1,814	1,872
Total current liabilities	5,154	5,075
Noncurrent liabilities		
Long-term debt	6,768	7,167
Pension liabilities	1,304	1,226
Other postretirement benefits liabilities	321	362
Deferred income taxes	349	538
Other noncurrent liabilities	1,054	965
Total noncurrent liabilities	9,796	10,258
Shareholders’ equity		
Ordinary shares (423.6 million outstanding in 2018 and 439.9 million in 2017)	4	4
Capital in excess of par value	12,090	11,987
Retained earnings	8,161	8,669
Accumulated other comprehensive loss	(4,145)	(3,404)

Shares held in trust	(3)	(3)
Total Eaton shareholders’ equity	16,107	17,253
Noncontrolling interests	35	37
Total equity	16,142	17,290
Total liabilities and equity	$31,092	$32,623

The accompanying notes are an integral part of the consolidated financial statements.

Table of Contents

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31		
(In millions)	2018	2017	2016
Operating activities			
Net income	$ 2,146	$ 2,986	$ 1,919
Adjustments to reconcile to net cash provided by operating activities			
Depreciation and amortization	903	914	929
Deferred income taxes	(115)	(206)	(83)
Pension and other postretirement benefits expense	159	208	235
Contributions to pension plans	(126)	(473)	(262)
Contributions to other postretirement benefits plans	(25)	(20)	(30)
Gain on sale of businesses	—	(843)	—
Changes in working capital			
Accounts receivable - net	(123)	(231)	(170)
Inventory	(242)	(202)	34
Accounts payable	23	388	—
Accrued compensation	23	59	20
Accrued income and other taxes	(31)	(4)	30
Other current assets	71	2	(21)
Other current liabilities	144	(203)	(44)
Other - net	(149)	291	13
Net cash provided by operating activities	2,658	2,666	2,570
Investing activities			
Capital expenditures for property, plant and equipment	(565)	(520)	(497)
Proceeds from sale of business	—	607	—
Sales (purchases) of short-term	355	(298)	(40)

investments - net			
Payments for settlement of currency exchange contracts not designated as hedges - net	(110)	—	—
Other - net	(78)	(6)	8
Net cash used in investing activities	(398)	(217)	(529)
Financing activities			
Proceeds from borrowings	410	1,000	631
Payments on borrowings	(574)	(1,554)	(653)
Cash dividends paid	(1,149)	(1,068)	(1,037)
Exercise of employee stock options	29	66	74
Repurchase of shares	(1,271)	(850)	(730)
Employee taxes paid from shares withheld	(24)	(22)	(18)
Other - net	(2)	(14)	(5)
Net cash used in financing activities	(2,581)	(2,442)	(1,738)
Effect of currency on cash	43	11	(28)
Total increase (decrease) in cash	(278)	18	275
Cash at the beginning of the period	561	543	268
Cash at the end of the period	$ 283	$ 561	$ 543

The accompanying notes are an integral part of the consolidated financial statements.

Table of Contents

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In millions)	Ordinary shares Shares	Ordinary shares Dollars	Capital in excess of par value	Retained earnings	Accumulated other comprehensive loss	Shares held in trust	Total Eaton shareholders' equity	Noncontrolling interests	Total equity
Balance at January 1, 2016	458.8	$ 5	$ 11,701	$ 7,409	$ (3,863)	$ (3)	$ 15,249	$ 45	$ 15,294
Net income	—	—	—	1,916	—	—	1,916	3	1,919
Other comprehensive loss, net of tax					(585)		(585)		(585)
Cash dividends paid	—	—	—	(1,037)	—	—	(1,037)	(2)	(1,039)
Issuance of shares under equity-based compensation plans - net (net of income tax benefit of $1)	2.4	—	144	(3)	—	—	141	—	141
Changes in noncontrolling interest of consolidated subsidiaries - net	—	—	—	—	—	—	—	(2)	(2)
Repurchase of shares	(11.8)	—	—	(730)	—	—	(730)	—	(730)
Balance at December 31, 2016	449.4	5	11,845	7,555	(4,448)	(3)	14,954	44	14,998
Cumulative-effect adjustment upon adoption of ASU 2016-09	—	—	—	48	—	—	48	—	48
Net income	—	—	—	2,985	—	—	2,985	1	2,986
Other comprehensive income, net of tax					1,044		1,044		1,044
Cash dividends paid	—	—	—	(1,068)	—	—	(1,068)	(5)	(1,073)
Issuance of shares under equity-based compensation plans	2.0	—	142	(2)	—	—	140	—	140
Changes in noncontrolling interest of consolidated subsidiaries - net	—	—	—	—	—	—	—	(3)	(3)
Repurchase of shares	(11.5)	(1)	—	(849)	—	—	(850)	—	(850)
Balance at December 31, 2017	439.9	4	11,987	8,669	(3,404)	(3)	17,253	37	17,290
Cumulative-effect adjustment upon adoption of ASU 2014-09	—	—	—	(2)	—	—	(2)	—	(2)
Cumulative-effect adjustment upon adoption of ASU 2016-16	—	—	—	(199)	—	—	(199)	—	(199)
Net income	—	—	—	2,145	—	—	2,145	1	2,146
Other comprehensive loss, net of tax					(741)		(741)		(741)
Cash dividends paid	—	—	—	(1,149)	—	—	(1,149)	(1)	(1,150)
Issuance of shares under equity-based compensation plans	1.2	—	103	(3)	—	—	100	—	100
Changes in noncontrolling interest of consolidated subsidiaries - net	—	—	—	—	—	—	—	(2)	(2)

Repurchase of shares	(17.5)	—	—	(1,300)	—	—	(1,300)	—	(1,300)
Balance at December 31, 2018	423.6	$ 4	$ 12,090	$ 8,161	$ (4,145)	$ (3)	$ 16,107	$ 35	$ 16,142

The accompanying notes are an integral part of the consolidated financial statements.

Table of Contents

EATON CORPORATION plc
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Amounts are in millions unless indicated otherwise (per share data assume dilution).

Note 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES
General Information and Basis of Presentation
Eaton Corporation plc (Eaton or the Company) is a power management company with 2018 net sales of $21.6 billion. The Company provides energy-efficient solutions that help its customers effectively manage electrical, hydraulic and mechanical power more reliably, safely and sustainably. Eaton has approximately 99,000 employees in 59 countries and sells products to customers in more than 175 countries.
The consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States. Preparation of the consolidated financial statements requires management to make estimates and assumptions that affect amounts reported in the consolidated financial statements and notes. Actual results could differ from these estimates. Management has evaluated subsequent events through the date the consolidated financial statements were filed with the Securities Exchange Commission.
The consolidated financial statements include the accounts of Eaton and all subsidiaries and other entities it controls. Intercompany transactions and balances have been eliminated. The equity method of accounting is used for investments in associate companies where the Company has significant influence and generally a 20% to 50% ownership interest. Equity investments are evaluated for impairment whenever events or circumstances indicate the book value of the investment exceeds fair value. An impairment would exist if there is an other-than-temporary decline in value. Income from equity investments is reported in Other (income) expense - net. Eaton does not have off-balance sheet arrangements or financings with unconsolidated entities. In the ordinary course of business, the Company leases certain real properties and equipment, as described in Note 9.
Eaton's functional currency is United States Dollars (USD). The functional currency for most subsidiaries is their local currency. Financial statements for these subsidiaries are translated at year-end exchange rates as to assets and liabilities and weighted-average exchange rates as to revenues and expenses. The resulting translation adjustments are recognized in Accumulated other comprehensive loss.
During the first quarter of 2018, Eaton re-segmented certain reportable operating segments due to a reorganization of the Company's businesses. The new reportable business segment is eMobility (which includes certain legacy Electrical Products and Vehicle product lines). For reportable segments that were re-segmented, previously reported segment financial information has been updated for 2016 and 2017. See Note 16 for additional information related to these segments.
Adoption of New Accounting Standards
Eaton adopted Accounting Standard Update 2014-09, Revenue from Contracts with Customers, at the start of the first quarter of 2018 using the modified retrospective approach and recorded a cumulative effect adjustment to retained earnings based on the current terms and conditions for open contracts as of January 1, 2018. The adoption of the standard did not have a material impact on the Company’s Consolidated financial statements. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

Consolidated Balance Sheet	Balance at December 31, 2017	Adjustments due to ASU 2014-09	Balance at January 1, 2018
Assets			
Accounts receivable - net	$ 3,943	$ (99)	$ 3,844
Prepaid expenses and other current assets	679	129	808
Deferred income taxes	253	1	254
Liabilities and shareholders' equity			

Other current liabilities	$ 1,872	$ 33	$ 1,905
Eaton shareholders' equity	17,253	(2)	17,251

25

Table of Contents

Eaton adopted Accounting Standards Update 2016-16, Intra-Entity Transfers of Assets Other Than Inventory (ASU 2016-16), at the start of the first quarter of 2018. This accounting standard requires companies to recognize the income tax effects of intercompany sales and transfers of assets other than inventory in the period in which the transfer occurs. The previous accounting standard required companies to defer the income tax effects of intercompany transfers of assets by recording a prepaid tax, until such assets were sold to an outside party or otherwise recognized. ASU 2016-16 requires companies to write off any income tax amounts that had been deferred as prepaid taxes from past intercompany transactions, and record deferred tax balances for amounts that have not been recognized, through a cumulative-effect adjustment to retained earnings. Upon adoption, the Company recorded a cumulative-effect adjustment of $199 to reduce retained earnings.

Eaton adopted Accounting Standards Update 2017-07, Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (ASU 2017-07), at the start of the first quarter of 2018. The new standard requires companies to present service costs consistent with other employee compensation costs on the income statement and separate from all other elements of pension costs. The retrospective adoption of this standard resulted in an increase in Selling and administrative expense with a corresponding increase in Other income - net of $6 for the year ended December 31, 2018, a reduction in Selling and administrative expense with a corresponding decrease in Other income - net of $39 for the year ended December 31, 2017, and a reduction in Cost of products sold, Selling and administrative expense, and Research and development expense with a corresponding decrease in Other income - net of $56 for the year ended December 31, 2016.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Revenue Recognition

Sales are recognized when control of promised goods or services are transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Control is transferred when the customer has the ability to direct the use of and obtain benefits from the goods or services. The majority of the Company’s sales agreements contain performance obligations satisfied at a point in time when control is transferred to the customer. Sales recognized over time are generally accounted for using an input measure to determine progress completed at the end of the period. Sales for service contracts generally are recognized as the services are provided. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate sales price to each distinct obligation based on the price of each item sold in separate transactions.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and payment is due is not significant. Eaton does not evaluate whether the selling price includes a financing interest component for contracts that are less than a year. Sales, value added, and other taxes collected concurrent with revenue are excluded from sales. Shipping and handling costs are treated as fulfillment costs and are included in Cost of products sold.

Eaton records reductions to sales for returns, and customer and distributor incentives, primarily comprised of rebates, at the time of the initial sale. Rebates are estimated based on sales terms, historical experience, trend analysis, and projected market conditions in the various markets served. The rebate programs offered vary across businesses due to the numerous markets Eaton serves, but the most common incentives relate to amounts paid or credited to customers for achieving defined volume levels. Returns are estimated at the time of the sale primarily based on historical experience and recorded gross on the Consolidated Balance Sheet. See Note 4 for additional information.

Goodwill and Indefinite Life Intangible Assets

Goodwill is evaluated annually for impairment as of July 1 using either a quantitative or qualitative analysis. Goodwill is tested for impairment at the reporting unit level, which is equivalent to Eaton's operating segments and based on the net assets for each segment, including goodwill and intangible assets. Goodwill is assigned to each operating segment, as this represents the lowest level that constitutes a business and is the level at which management regularly reviews the operating results. The Company performs a quantitative analysis using a discounted cash flow model and other valuation techniques, but may elect to perform a qualitative analysis. Additionally, goodwill is evaluated for impairment whenever an event occurs or circumstances change that would indicate that it is more likely than not that the fair value of an operating segment is less than its carrying amount.

Table of Contents

The annual goodwill impairment test was performed using a qualitative analysis in 2018 and 2017 and a quantitative analysis in 2016. A qualitative analysis is performed by assessing certain trends and factors, including projected market outlook and growth rates, forecasted and actual sales and operating profit margins, discount rates, industry data, and other relevant qualitative factors. These trends and factors are compared to, and based on, the assumptions used in the most recent quantitative analysis performed for each reporting unit. The results of the qualitative analyses did not indicate a need to perform quantitative analysis.

Goodwill impairment testing was also performed using a quantitative analysis for the Electrical Products, Vehicle and eMobility segments in the first quarter of 2018 due to a reorganization of the Company's businesses resulting in the creation of the eMobility segment. The Company used the relative fair value method to reallocate goodwill among these reporting units.

Quantitative analyses were performed by estimating the fair value for each reporting unit using a discounted cash flow model, which considered forecasted cash flows discounted at an estimated weighted-average cost of capital. The forecasted cash flows were based on the Company's long-term operating plan and a terminal value was used to estimate the operating segment's cash flows beyond the period covered by the operating plan. The weighted-average cost of capital is an estimate of the overall after-tax rate of return required by equity and debt market holders of a business enterprise. These analyses require the exercise of significant judgments, including judgments about appropriate discount rates, perpetual growth rates and the timing of expected cash flows of the respective reporting unit. Sensitivity analyses were performed around these assumptions in order to assess the reasonableness of the assumptions and the resulting estimated fair values.

Based on these analyses performed in 2018 and 2017, the fair value of Eaton's reporting units continue to substantially exceed their respective carrying amounts and thus, no impairment exists.

Indefinite life intangible assets consist of certain trademarks. They are evaluated annually for impairment as of July 1 using either a quantitative or qualitative analysis to determine whether their fair values exceed their respective carrying amounts. Indefinite life intangible asset impairment testing for 2018 and 2017 was performed using a quantitative analysis. The Company determines the fair value of these assets using a royalty relief methodology similar to that employed when the associated assets were acquired, but using updated estimates of future sales, cash flows and profitability. Additionally, indefinite life intangible assets are evaluated for impairment whenever an event occurs or circumstances change that would indicate that it is more likely than not that the asset is impaired. For 2018 and 2017, the fair value of indefinite lived intangible assets exceeded the respective carrying value.

For additional information about goodwill and other intangible assets, see Note 6.

Other Long-Lived Assets

Depreciation and amortization for property, plant and equipment, and intangible assets subject to amortization, are generally computed by the straight-line method and included in Cost of products sold, Selling and administrative expense, and Research and development expense, as appropriate. Cost of buildings are depreciated generally over 40 years and machinery and equipment over 3 to 10 years. At December 31, 2018, the weighted-average amortization period for intangible assets subject to amortization was 17 years for patents and technology; 17 years for customer relationships; and 17 years for certain trademarks. Software is generally amortized up to a life of 15 years.

Other long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Upon indications of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The asset group would be considered impaired when the estimated future net undiscounted cash flows generated by the asset group are less than its carrying value. Determining asset groups and underlying cash flows requires the use of significant judgment.

Retirement Benefits Plans

For the principal pension plans in the United States, Canada, Puerto Rico and the United Kingdom, the Company uses a market-related value of plan assets to calculate the expected return on assets used to determine net periodic benefit costs. The market-related value of plan assets is a calculated value that recognizes changes in the fair value of plan assets over a five year period. All other plans use fair value of plan assets.

Net actuarial gains or losses are amortized to expense on a plan-by-plan basis when they exceed the accounting corridor. The Company's corridors are set at either 8% or 10%, depending on the plan, of the greater of the plan assets or benefit obligations. Gains or losses outside of the corridor are subject to amortization over an average employee future service period that differs by plan, but is approximately 11 years on a weighted average basis. If most or all of the plan's participants are no longer actively accruing benefits, the average life expectancy is used.

Table of Contents

Asset Retirement Obligations

A conditional asset retirement obligation is recognized at fair value when incurred if the fair value of the liability can be reasonably estimated. Uncertainty about the timing or method of settlement of a conditional asset retirement obligation would be considered in the measurement of the liability when sufficient information exists. Eaton believes that for substantially all of its asset retirement obligations, there is an indeterminate settlement date because the range of time over which the Company may settle the obligation is unknown or cannot be estimated. A liability for these obligations will be recognized when sufficient information is available to estimate fair value.

Income Taxes

Deferred income tax assets and liabilities are determined based on the difference between the financial statement and tax basis of the respective assets and liabilities, using enacted tax rates in effect for the year when the differences are expected to reverse. Deferred income tax assets are recognized for income tax loss carryforwards and income tax credit carryforwards. Judgment is required in determining and evaluating income tax provisions and valuation allowances for deferred income tax assets. Eaton recognizes an income tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. Eaton evaluates and adjusts these accruals based on changing facts and circumstances. Eaton recognizes interest and penalties related to unrecognized income tax benefits in the provision for income tax expense. For additional information about income taxes, see Note 10.

Derivative Financial Instruments and Hedging Activities

Eaton uses derivative financial instruments to manage the exposure to the volatility in raw material costs, currency, and interest rates on certain debt. These instruments are marked to fair value in the accompanying Consolidated Balance Sheets. Changes in the fair value of derivative assets or liabilities (i.e., gains or losses) are recognized depending upon the type of hedging relationship and whether an instrument has been designated as a hedge. For those instruments that qualify for hedge accounting, Eaton designates the hedging instrument, based upon the exposure being hedged, as a cash flow hedge, a fair value hedge, or a hedge of a net investment in a foreign operation. Changes in fair value of these instruments that do not qualify for hedge accounting are recognized immediately in net income. See Note 14 for additional information about hedges and derivative financial instruments.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update 2016-02, Leases (Topic 842), (ASU 2016-02). This accounting standard requires that a lessee recognize a lease asset and a lease liability on its balance sheet for all leases, including operating leases. ASU 2016-02 will require additional disclosures in the notes to the consolidated financial statements.

Eaton adopted the standard, and related amendments, in the first quarter of 2019 using the optional transition method and will not restate prior periods. The Company elected to use the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed the carry forward of historical lease classification of existing leases. The Company made an accounting policy election to not recognize lease assets or liabilities for leases with a term of 12 months or less. Additionally, when accounting for leases, the Company combines payments for leased assets, related services and other components of a lease.

The Company is in the final stage of assessing the impact of adopting the standard. The Company collected the lease data required by the new standard, and has identified and is implementing the appropriate changes to business processes and controls to support recognition and disclosure under the new standard. In the first quarter of 2019, Eaton plans to conclude its testing of the new third-party lease accounting system. The Company expects to record a cumulative-effect adjustment of less than $1 to retained earnings as of January 1, 2019. Additionally, the adoption of the new standard will result in the recording of lease assets and lease liabilities for operating leases in the range of approximately $400 to $500 as of January 1, 2019. The Company does not expect the new standard to have a material impact to the Consolidated Statements of Income or Cash Flows.

Table of Contents

Note 2. SALE AND ACQUISITION OF BUSINESSES
Agreement to acquire controlling interest of Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S.
On January 31, 2019, Eaton reached a definitive agreement to acquire an 82.275% controlling interest in Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S., a leading manufacturer of electrical switchgear based in Ankara, Turkey, with a primary focus on medium voltage solutions for industrial and utility customers. Its sales for the 12 months ended September 30, 2018 were $126. The purchase price for the shares is approximately $214 on a cash and debt free basis. As required by the Turkish capital markets legislation, Eaton plans to file an application to execute a mandatory tender offer for the remaining shares shortly after the transaction closes. The transaction is subject to customary closing conditions and regulatory approvals.
Sale of heavy-duty and medium-duty commercial vehicle automated transmission business
On July 31, 2017, Eaton sold a 50% interest in its heavy-duty and medium-duty commercial vehicle automated transmission business for $600 in cash to Cummins, Inc. The new joint venture is named Eaton Cummins Automated Transmission Technologies (ECATT). In 2017, the Company recognized a pre-tax gain of $1,077, of which $533 related to the pre-tax gain from the $600 proceeds from the sale and $544 related to the Company’s remaining 50% investment in the joint venture being remeasured to fair value. The after-tax gain was $843. The fair value is based on the price paid to Eaton for the 50% interest sold to Cummins, Inc. and further supported by a discounted cash flow model. Eaton accounts for its investment on the equity method of accounting.

Note 3. ACQUISITION INTEGRATION CHARGES
Eaton incurs integration charges related to acquired businesses. A summary of these charges follows:

	2018	2017	2016
Electrical Products	$ —	$ 4	$3
Electrical Systems and Services	—	—	1
Total acquisition integration charges before income taxes	—	4	4
Income taxes	—	2	1
Total after income taxes	$ —	$ 2	$3
Per ordinary share - diluted	$ —	$ —	$0.01

Business segment acquisition integration charges in 2017 related to the integration of Ephesus Lighting, Inc. (Ephesus), which was acquired in 2015. The charges associated with Ephesus were included in Selling and administrative expense. Business segment acquisition integration charges in 2016 related to the integration of Ephesus and Oxalis Group Ltd. (Oxalis), which was acquired in 2015. The charges associated with Ephesus were included in Cost of products sold and Selling and administrative expense, while the charges associated with Oxalis were included in Cost of products sold. In Business Segment Information in Note 16, the charges reduced Operating profit of the related business segment.
Note 4. REVENUE RECOGNITION
Sales are recognized when obligations under the terms of the contract are satisfied and control of promised goods or services have transferred to our customers. Sales are measured at the amount of consideration the Company expects to be paid in exchange for these products or services.
The majority of the Company’s sales agreements contain performance obligations satisfied at a point in time when title and risk and rewards of ownership have transferred to the customer. Sales recognized over time are less than 5% of Eaton’s Consolidated Net Sales. Sales recognized over time are generally accounted for using an input measure to determine progress completed at the end of the period. Sales for service contracts generally are recognized as the services are provided. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate sales price to each distinct obligation based on the price of each item sold in separate transactions.
Due to the nature of the work required to be performed for obligations recognized over time, Eaton estimates total costs by contract. The estimate of total costs are subject to judgment. Estimated amounts are included in the recognized sales price to the extent it is not probable that a significant reversal of cumulative sales will occur.

Additionally, contracts can be modified to account for changes in contract specifications, requirements or sale price. The effect of a contract modification on the sales price or adjustments to the measure of completion under the input method are recognized as adjustments to revenue on a cumulative catch-up basis.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. Eaton does not evaluate whether the selling price includes a financing interest component for contracts that are less than a year. Sales, value added, and other taxes collected concurrent with revenue are excluded from sales. Shipping and handling costs are treated as fulfillment costs and are included in Cost of products sold.

Eaton records reductions to sales for returns, and customer and distributor incentives, primarily comprised of rebates, at the time of the initial sale. Rebates are estimated based on sales terms, historical experience, trend analysis, and projected market conditions in the various markets served. The rebate programs offered vary across businesses due to the numerous markets Eaton serves, but the most common incentives relate to amounts paid or credited to customers for achieving defined volume levels. Returns are estimated at the time of the sale primarily based on historical experience and are recorded gross on the Consolidated Balance Sheet.

Sales commissions are expensed when the amortization period is less than a year and are generally not capitalized as they are typically earned at the completion of the contract when the customer is invoiced or when the customer pays Eaton.

Sales of products and services varies by segment and are discussed in Note 16.

In the Electrical Products segment, sales contracts are primarily for electrical components, industrial components, residential products, single phase power quality, emergency lighting, fire detection, wiring devices, structural support systems, circuit protection, and lighting products. These sales contracts are primarily based on a customer’s purchase order followed by our order acknowledgement, and may also include a master supply or distributor agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer’s facility.

In the Electrical Systems and Services segment, sales contracts are primarily for power distribution and assemblies, three phase power quality, hazardous duty electrical equipment, intrinsically safe explosion-proof instrumentation, utility power distribution, power reliability equipment, and services. The majority of the sales contracts in this segment contain performance obligations satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer’s facility; however, certain power distribution and power quality services are recognized over time.

Many of the products and services in power distribution and power quality services meet the definition of continuous transfer of control to customers and are recognized over time. These products are engineered to a customer’s design specifications, have no alternative use to Eaton, and are controlled by the customer as evidenced by the customer’s contractual ownership of the work in process or our right to payment for work performed to date plus a reasonable margin. As control is transferring over time, sales are recognized based on the extent of progress towards completion of the obligation. Eaton generally uses an input method to determine the progress completed and sales are recorded proportionally as costs are incurred. Incurred cost represent work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer.

In the Hydraulics segment, sales contracts are primarily for hydraulic components and systems for industrial and mobile equipment. These sales contracts are primarily based on a customer’s purchase order. In this segment, performance obligations are generally satisfied at a point in time when we ship the product from our facility.

In the Aerospace segment, sales contracts are primarily for aerospace fuel, hydraulics, and pneumatic systems for commercial and military use. These sales contracts are primarily based on a customer’s purchase order, and frequently covered by terms and conditions included in a long-term agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer’s facility. Our military contracts are primarily fixed-price contracts that are not subject to performance-based payments or progress payments from the customer.

In the Vehicle segment, sales contracts are primarily for drivetrains, powertrain systems and critical components that reduce emissions and improve fuel economy, stability, performance, and safety of cars, light trucks and commercial vehicles. These sales contracts are primarily based on a customer’s purchase order or a blanket purchase order subject to firm releases, frequently covered by terms and conditions included in a master supply agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or

when it arrives at the customer’s facility.
In the eMobility segment, sales contracts are primarily for electronic and mechanical components and systems that improves the power management and performance of both on-road and off-road vehicles. These sales contracts are primarily based on a customer’s purchase order. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer’s facility.

Table of Contents

In limited circumstances, primarily in the Electrical and Vehicle segments, Eaton sells separately-priced warranties that extend the warranty coverage beyond the standard coverage offered on specific products. Sales for these separately-priced warranties are recorded based on their stand-alone selling price and are recognized as revenue over the length of the warranty period.

The Company's six operating segments and the following tables disaggregate sales by lines of businesses, geographic destination, market channel or end market.

	Year ended December 31, 2018		
Net sales	United States	Rest of World	Total
Electrical Products	$4,112	$ 3,012	$7,124
Electrical Systems and Services	3,936	2,088	6,024
Hydraulics	1,190	1,566	2,756
	Original Equipment Manufacturers	Aftermarket, Distribution and End User	
Aerospace	$1,085	$ 811	1,896
	Commercial	Passenger and Light Duty	
Vehicle	$1,759	$ 1,730	3,489
eMobility			320
Total			$21,609

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (revenue recognized exceeds amount billed to the customer), and deferred revenue (advance payments and billings in excess of revenue recognized). Accounts receivables from customers were $3,402 and $3,399 at December 31, 2018 and December 31, 2017, respectively. Amounts are billed as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals or upon achievement of contractual milestones. These assets and liabilities are reported on the Consolidated Balance Sheets on a contract-by-contract basis at the end of each reporting period. Unbilled receivables were $94 and $117 at December 31, 2018 and January 1, 2018, respectively, and are recorded in Prepaid expenses and other current assets. The decrease in unbilled receivables was primarily due to billings to customers for amounts previously recognized as revenue, partially offset by revenue recognized and not yet billed.

Changes in the deferred revenue liabilities are as follows:

	Deferred Revenue
Balance at January 1, 2018	$ 227
Customer deposits and billings	967
Revenue recognized in the period	(939)
Translation	(7)
Balance at December 31, 2018	$ 248

A significant portion of open orders placed with Eaton are by original equipment manufacturers or distributors. These open orders are not considered firm as they have been historically subject to releases by customers. In measuring backlog of unsatisfied or partially satisfied obligations, only the amount of orders to which customers are firmly committed are included. Using this criterion, total backlog at December 31, 2018 was approximately $5.3 billion. Eaton expects to recognize approximately 87% of this backlog in the next twelve months and the rest thereafter.

Table of Contents

Impact of new accounting standard

In accordance with the new revenue accounting requirements, the impact of the adoption on the financial statement line items within the accompanying consolidated financial statements was as follows:

	Year ended December 31, 2018		
Consolidated Statements of Income	As Reported	Adjustment	Balances without Adoption of ASC 606
Net sales	$21,609	$ (30)	$ 21,579
Cost of products sold	14,511	(20)	14,491
Income before income taxes	2,424	(10)	2,414
Income tax expense	278	(2)	276
Net income	2,146	(8)	2,138
Net income attributable to Eaton ordinary shareholders	$2,145	$ (8)	$ 2,137

	December 31, 2018		
Consolidated Balance Sheets	As Reported	Adjustment	Balances without Adoption of ASC 606
Assets			
Accounts receivable - net	$3,858	$ 60	$ 3,918
Inventory	2,785	18	2,803
Prepaid expenses and other current assets	507	(109)	398
Deferred income taxes	293	(1)	292
Liabilities and shareholders’ equity			
Other current liabilities	$1,814	$ (26)	$ 1,788
Eaton shareholders' equity	$16,142	$ (6)	$ 16,136

Note 5. RESTRUCTURING CHARGES

During 2015, Eaton announced its commitment to undertake actions to reduce its cost structure in all business segments and at corporate. The multi-year initiative concluded at the end of 2017.

A summary of liabilities related to workforce reductions, plant closings and other associated costs announced as part of this program follows:

	Workforce reductions	Plant closing and other	Total
Balance at December 31, 2016	$ 113	$ 1	$114
Liability recognized	57	59	116
Payments	(102)	(39)	(141)
Other adjustments	(1)	(16)	(17)
Balance at December 31, 2017	67	5	72
Payments	(36)	(4)	(40)
Other adjustments	(17)	—	(17)

Balance at December 31, 2018	$ 14	$ 1	$15

Table of Contents

Note 6. GOODWILL AND OTHER INTANGIBLE ASSETS

Changes in the carrying amount of goodwill by segment follow:

	December 31, 2016	Goodwill written off from sale of business	Translation	December 31, 2017	Translation	December 31, 2018
Electrical Products	$ 6,418	$ —	$ 260	$ 6,678	$ (116)	$ 6,562
Electrical Systems and Services	4,203	(3)	111	4,311	(70)	4,241
Hydraulics	1,221	—	36	1,257	(45)	1,212
Aerospace	938	—	9	947	(6)	941
Vehicle	342	(52)	4	294	(2)	292
eMobility	79	—	2	81	(1)	